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TRANSMITTAL LETTER

APPEAL BRIEF

Appellant	:	Jones, et al.
Appl. No.	:	09/659,866
Filed	:	September 12, 2000
For	:	INTEGRATED EMERGENCY MEDICAL TRANSPORTATION DATABASE SYSTEM
Examiner	:	Pass, Natalie
Group Art Unit	:	3626

CERTIFICATE OF MAILING

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

April 14, 2006
(Date)

John M. Carson, Reg. No.34,303

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing in the above-identified application are the following enclosures:

(X) Appeal Brief in twenty-six (26) pages.

(X) Supplemental Declaration signed by Kevin C. Hutton, including Exhibits F, G and H, as originally filed in the USPTO on April 13, 2006, in six (6) total pages.

(X) Declaration under 37 C.F.R. §131 to Overcome Aeromed signed by Scott J. Jones and Kevin C. Hutton, including Exhibits A1, A2, A3, B1, B2, B3, C, D, E1, E2 and E3, as originally filed in the USPTO on December 17, 2004, in seventeen (17) total pages

FILING FEES:

The present application qualifies for Small Entity Status under 37 CFR 1.27.

FEE CALCULATION				
FEE TYPE		**FEE CODE**	**CALCULATION**	**TOTAL**
Appeal Brief	*41.20(b)(2)*	2402 ($250)		$250
5 Month Extension	*1.17(a)(5)*	2255 ($1,080.00)		$1080
			TOTAL FEE DUE	$1330.00

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John M. Carson
Registration No. 34,303
Attorney of Record
Customer No. 20,995

2521990/cfn/041306

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant	:	Jones, et al.
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(Date)

John M. Carson, Reg. No.34,303

APPELLANT'S BRIEF

Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant in the above-captioned patent application is appealing the rejection of Claims 2-19 in an Office Action dated June 15, 2005. Pursuant to 37 C.F.R. § 41.31(a)(1), the Examiner's decision in the patent application is therefore in condition for appeal to the Board of Patent Appeals and Interferences.

A check in the amount of $250 is included herewith for the fee of filing an appeal brief pursuant to 37 C.F.R. § 41.20(a)(2). If for some reason Appellant has not paid sufficient fee for filing this appeal brief, please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

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III. REAL PARTY IN INTEREST

The real party in interest is Golden Hour Data Systems, Inc., a California corporation, which is the assignee of the patent application by virtue of an assignment recorded in the United States Patent and Trademark Office at Reel 014523, Frame 0082.

IV. RELATED APPEALS AND INTERFERENCES

None of the Appellant, Appellant's legal representative, or assignee is aware of any appeal or interference which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

V. STATUS OF CLAIMS

The patent application was filed on September 12, 2000, with one claim. The patent application is a continuation of U.S. Patent Application No. 09/033,440, filed on March 2, 1998, now issued as U.S. Patent No. 6,117,073 on September 12, 2000. In a Preliminary Amendment, filed August 8, 2001 and prior to any substantive response from the Examiner, Appellant cancelled Claim 1, and added new Claims 2-19.

In a first Office Action, dated May 7, 2003, Examiner Milan S. Kapadia rejected Claims 2 and 9 under 35 U.S.C. § 102(a) as being anticipated by the webpage "www.aeromed-software.com" as it existed on February 8, 1998 (hereinafter "Aeromed"). The Examiner also rejected Claims 2-5, 10, and 15 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,122,959 to Nathanson, et al. (hereinafter "Nathanson") in view of Schriewer, Scott, *Airborne Ambulance Saves Precious Time*, TULSA WORLD, pp. 1-2, May 22, 1996 (hereinafter "Schriewer"), and rejected claims 6-7, 11-12, and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over Nathanson in view of Schriewer, and further in view of Hudson, Terese, *Attorneys Fear Patient Transfer Claims in Malpractice Cases*, HOSPITALS, vol. 65, issue 7, pp. 44-48, April 5, 1991 ("hereinafter "Hudson"). The Examiner rejected Claims 8, 13, and 18 under 35 U.S.C. § 103(a) as unpatentable over Nathanson and Schriewer and further in view of U.S. Patent No. 5,974,355 to Matsumoto, et al. (hereinafter "Matsumoto"). The Examiner also rejected Claims 9, 14, and 19 under 35 U.S.C. § 103(a) as unpatentable over Nathanson and Schriewer and further in view of U.S. Patent No.6,044,323 to Yee, et al. (hereinafter "Yee"). In

a response filed by Appellant on August 6, 2003, Claim 2 was amended solely for the purpose of clarification, in order to correct a typographical error.

In a Final Office Action, dated September 21, 2004, Examiner Vivek D. Koppikar maintained each of the rejections of Claims 2-19 discussed above. In addition, the Examiner added a new rejection of Claims 7, 12, and 17 under 35 U.S.C. § 112 ¶ 2 as indefinite for referring to particular government acts (the Consolidated Budget Reconciliation Act and the Omnibus Budget Reconciliation Act), arguing that the acts are subject to amendment or repeal. In a response filed December 17, 2004, Appellant made no amendments to Claims 2-19, and added new Claims 20-26. Appellant also included a *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed*, along with Exhibit Sheets A1, A2, A3, B1, B2, B3, C, D, E1, E2, and E3, copies of each of which are attached herein in the Evidence Appendix.

In an Advisory Action mailed January 21, 2005, Examiner Joseph Thomas stated that the previous response did not place the application in condition for allowance. In response, Appellant filed a Request for Continued Examination on January 21, 2005, requesting consideration of the response filed December 17, 2004. In a Supplemental Amendment filed on February 8, 2005, Appellant made no amendments to Claims 2-26, and added new Claims 27-29.

In an Office Action mailed June 15, 2005, Examiner Natalie Pass withdrew the rejection of Claims 7, 12, and 17 as indefinite under 35 U.S.C. § 112 ¶ 2, but maintained each of the other rejections of Claims 2-19 discussed above. The Examiner also rejected Claims 20-28 under 35 U.S.C. § 103(a) as unpatentable over Nathanson in view of Schriewer, and rejected Claim 29 under 35 U.S.C. § 103(a) as unpatentable over Schriewer in view of Nathanson. No additional Amendments have been made by Appellant.

In summary, Claims 2-19 stand twice rejected.

VI. STATUS OF AMENDMENTS

Appellant has not filed any amendments to the specification or claims subsequent to the most recent rejection of the claims.

VII. SUMMARY OF CLAIMED SUBJECT MATTER

Embodiments of Appellant's invention include methods and computerized systems for managing airborne transportation of a patient.[1]

Claim 1 recites a computerized system for managing airborne transportation of a patient.[2] The airborne transportation of the patient may be done either by a helicopter or an airplane.[3] The computerized system comprises a first module comprising instructions for dispatching an aircraft carrying an airborne emergency crew to a patient site.[4] The instructions for dispatching an aircraft include making use of stored information regarding emergency equipment and personnel – including dispatchers, flight crew members, base physicians, and pilots – along with received information regarding the patient and the patient site – such as accident scene location, ground contacts, and basic patient scenario and demographics.[5]

The computerized system of Claim 1 also comprises a second module comprising instructions for generating a calculated flight path to the patient site, which may be generated using information regarding the rendezvous and landing zone locations as well as the closest and receiving hospitals.[6] In a particular aspect, rendezvous and landing zone information is gathered, including address, zip code, Thomas Bros. references and waypoint longitude/latitude locations.[7] Other information that may be used includes information regarding, for example, local noise regulations and the existence of power lines.[8]

Claim 1 also comprises a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path.[9] Flight tracking takes place throughout the flight and both positions and time stamps are recorded.[10] This recording may be done automatically, and pertinent flight

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[1] *See Specification*, at least at page 3, ll. 27-20, page 4, ll. 3-7, page 6, ll. 10-18, and page 7, ll. 6-23, and Claims 1, 10 and 15.
[2] *See Id.*, at least at page 7, ll. 11-23, and Figures 1, 3, and 4a.
[3] *See Id.*
[4] *See Id.*, at least at page 9, ll. 14 – page 10, ll. 5, and Figures 3 and 4a.
[5] *See Id.*, at least at page 9, ll. 22-31, and Figure 4a.
[6] *See Id.*, at least at page 9, ll. 6-25, and Figures 3 and 4a.
[7] *See Id.*, at page 6, ll. 9-14.
[8] *See Id.*, at page 19, ll. 7-8.
[9] *See Id.*, at least at page 10, ll 7-9 and 16-19, page 19, ll. 1-2, and Figures 3 and 4a.
[10] *See Id.*

information calculated, such as total mileage traveled.[11] In one aspect, after flight tracking information is recorded, the system checks for the existence of diversions from the calculated path, and may prompt a user to input a reason for a diversion if a diversion is identified, as described in the specification and also illustrated in the process flow of Figure 4b.[12]

There are a wide variety of reasons for diversion applicable to air transport such as helicopters but not to ground transport such as ambulances, including the need to avoid hazardous weather conditions. In contrast to diversions in ground transportation, which are generally confined to taking an alternate series of roads to a destination, a massive amount of small variations may be made to a flight path, each of which may have a significant effect on the cost of the flight, and identification of such diversions enables these diversions to be better explained to a customer.

Claim 10 recites a system for managing airborne transportation of a patient.[13] The system comprises means for dispatching an aircraft carrying an airborne emergency transport crew to a patient site.[14] The system also comprises means for generating a calculated flight path to a patient site.[15] The system also comprises means for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path.[16]

Claim 15 recites a method of managing airborne transportation of a patient.[17] The method comprises dispatching an aircraft carrying an emergency transport crew to a patient site.[18] The method also comprises generating a calculated flight path to the patient site.[19] The method also includes tracking the actual flight path of the aircraft.[20] The method also includes determining whether the actual flight path varies from the calculated flight path.[21]

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[11] *See Id.*, at page 10, ll. 16-19.
[12] *See Id.*, at page 19, ll. 1-2, and Figure 4b.
[13] *See Id.*, at least at page 7, ll. 11-23, and Figures 1, 3, and 4a.
[14] *See Id.*, at least at page 9, ll. 14 – page 10, ll. 5, and Figures 3 and 4a.
[15] *See Id.*, at least at page 9, ll. 6-25, and Figures 3 and 4a.
[16] *See Id.*, at least at page 10, ll 7-9 and 16-19, page 19, ll. 1-2, and Figures 3 and 4a.
[17] *See Id.*, at least at page 4, ll. 3-7, page 6, ll. 10-18, page 7, ll. 6-23, and Claims 1, 10 and 15.
[18] *See Id.*, at least at page 9, ll. 14 – page 10, ll. 5, and Figures 3 and 4a.
[19] *See Id.*, at least at page 9, ll. 6-25, and Figures 3 and 4a.
[20] *See Id.*, at least at page 10, ll 7-9 and 16-19, and Figures 3 and 4a.
[21] *See Id.*, at least at page 19, ll. 1-2 and Figure 4a..

VIII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are:

(1) The rejection of Claims 2 and 9 under 35 U.S.C. § 102(a) as being anticipated by Aeromed; and

(2) The rejection of Claims 2, 10 and 15 under 35 U.S.C. § 103(a) over Nathanson in view of Schriewer.

IX. ARGUMENT

Independent Claim 2 is not anticipated by Aeromed because the *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed* presents facts sufficient to establish either reduction to practice of the invention prior to the effective date of Aeromed or in the alternative, facts sufficient to establish reduction to practice prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application, for at least the reasons set forth in section A below. In addition, independent Claim 2 is not anticipated by Aeromed for at least the reasons set forth in section B below. Further, independent Claims 2, 10, and 15 are not obvious over Nathanson in view of Schriewer for at least the reasons set forth in section C below.

A. Claim 2 Is Not Anticipated By Aeromed Because the Declaration Under 37 C.F.R. § 131 To Overcome Aeromed Presents Sufficient Facts to Establish Either Reduction to Practice or Conception Coupled With Due Diligence Prior to the Effective Date of the Aeromed Reference

In rejecting Claims 2 and 9 under 35 U.S.C. § 102(a) in the Office Action dated May 7, 2003, the substance of which has not been modified by later Office Actions, the Examiner stated only that

> As per claims 2 and 9, Aeromed teaches a computerized system for managing airborne transportation of a patient, comprising:
> a first module comprising instructions for dispatching an aircraft carrying an airborne emergency transport crew to a patient site (Aeromed; pages 4 and 5);
> a second module comprising instructions for generating a calculated flight path to the patient site (Aeromed; pages 4 and 5); and
> a third module comprising instructions for tracking the actual flight path of the vehicle and [determine] whether the actual flight path varies from the

calculated flight path and for tracking flight coordinates of the aircraft (Aeromed; pages 4 and 5).[22]

In response, discussed in greater detail below, Appellant argued that the Aeromed reference discusses a system in which the user, looking at position reports and flight plans displayed on a map, can determine whether or not the aircraft is on a calculated flight path, but does not disclose or suggest a computerized system comprising instructions for determining whether the actual flight path varies from the calculated flight path.[23] In addition, Appellant argued that the Aeromed reference, the cited portion of which comprises only 14 lines of disclosure potentially relevant to Claim 2 and is merely a list of features, is not an enabling disclosure with respect to the "first module comprising instructions for dispatching an aircraft" as there is no disclosure in the cited portion of the Aeromed reference that discloses how to dispatch an aircraft.[24]

In the Office Action mailed September 21, 2004, the Examiner maintained the rejection of Claims 2 and 9 as anticipated by the Aeromed reference.[25] In response, Appellant submitted a *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed* (hereinafter "the Declaration"), signed by inventors Scott J. Jones and Kevin C. Hutton, a copy of which is attached, which provided facts sufficient to overcome the February 5, 1998 effective date of the Aeromed reference.[26]

In the Office Action mailed June 15, 2005, the Examiner stated that the affidavit was ineffective to overcome the Aeromed reference.[27] The Examiner first argued that "the Exhibit sheets fail to show that the apparatus actually existed and worked for its intended purpose," and that "it is unclear <u>what</u> invention was reduced to practice ... in light of the fact that Exhibit D includes predictive language such as '...we could possibly reduce fuel expense...' (paragraph 4)

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[22] *May 7, 2003 O.A., pp. 2-3, para. (A). The portion of this document on Page 2 of the Office Action as mailed incorrectly referred to the Nathanson reference in the citations. This was corrected in a fax from Examiner Kapadia received on June 3, 2003.*
[23] *Reply to First Office Action*, page 5, para. 3.
[24] *Id.*, page 5, para. 4, and page 6, paras. 1-3
[25] *September 21, 2004 O.A.*, pages 4-5, section A
[26] *Amendment and Reply to Final Office Action*, page 6, paras. 2-7
[27] *June 15, 2004 O.A.*, page 13, para 1.

and '[o]ther potential uses' (paragraph 1)."[28] The Examiner states that "it appears, according to the Exhibit sheets that the invention had been conceived on paper at an undisclosed date, and that the Applicant appears to have determined what the functions of the product *would be* in the future."[29]

The Examiner then stated that "constructive reduction to practice is the filing date of the application, 12 September 2002, and reduction to practice has not been shown to be earlier than 12 September 2000."[30] The Examiner also argues that Appellant failed to show due diligence from the date of conception to the date of filing, using September 12, 2000 as the filing date.[31] The Examiner has also argued that language in the Declaration which states that "the elements of Claims 2 and 9 'were clearly conceived prior to February 5, 1998, and either actually reduced to practice or was undergoing due diligence to reduce to practice prior to February 5, 1998' (emphasis added by Examiner) makes it unclear as to which of these two conditions apply, and unclear as to what was actually reduced to practice and what was undergoing due diligence."[32]

Appellant respectfully submits that the language used in the Declaration which states that "the invention was either actually reduced to practice or was undergoing due diligence to reduce to practice prior to February 5, 1998" was intended to mirror the language used in 37 C.F.R. 1.131. Appellant submits that Exhibit Sheets A1, A2, A3, B1, B2, B3, C, D, E1, E2, and E3, which were submitted with and referenced by the *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed*, clearly establish, through the existence of documentation illustrating each of the features of Claims 2 and 9, that the invention as claimed in Claims 2 and 9 was conceived of by the inventors prior to February 5, 1998, the effective date of the Aeromed reference. As discussed below, Appellant submits that the Declaration is sufficient to show that the invention was reduced to practice prior to February 5, 1998, or that in the alternative, if the Declaration is insufficient to establish actual reduction to practice, the facts illustrate due diligence coupled with prior invention.

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[28] *Id.*, page 13, para. 3
[29] *Id.*, page 13, para. 3
[30] *Id.*, page 13, para. 4
[31] *Id.*, page 14, para. 1
[32] *Id.*, page 14, para. 2

Appellant further submits that the Declaration shows that the invention was actually reduced to practice, as a beta test version of the service was presented prior to February 5, 1998 at the Air Medical Transport Conference in Cincinnati. The Examiner has argued that the use of predictive language in a single attached Exhibit Sheet creates confusion as to what was actually reduced to practice. Appellant respectfully submits that, as set out in the Declaration, each of the features of Claims 2 and 9 is supported by non-predictive language and figures in other Exhibit Sheets. The existence of certain predictive language in one Exhibit Sheet does not diminish the support provided by these other sheets. In addition, the term "other potential uses" is a heading followed immediately by the phrase "[a] variety of functions can be performed by the individual computers in addition to the clinical medical record..."[33] (emphasis added).

The Examiner has also argued that the Declaration and attached exhibits fail to show that the apparatus actually existed and worked for its intended purpose.[34] Appellant respectfully submits that the service was in a state complete enough to be considered a beta testing stage, and that this beta test version of the service was further in a state complete enough to be presented at the Air Medical Transport Conference in Cincinnati prior to February 5, 1998. Therefore, Appellant respectfully submits that the invention as claimed in Claims 2 and 9 was actually reduced to practice prior to February 5, 1998.

If the facts as presented in the Declaration and attached Exhibit Sheets are found to be insufficient to establish actual reduction to practice, Appellant respectfully submits that the facts are sufficient to establish conception in conjunction with due diligence until the point of filing. Appellant first notes that the present application is a continuation of U.S. Application No. 09/033,440, filed on March 2, 1998 (now U.S. Patent No. 6,117,073), and thus has an effective filing date of March 2, 1998, rather than September 12, 2000 as stated by the Examiner. **Therefore, the period of time during which due diligence must be shown is February 5, 1998 to March 2, 1998, a period of less than one month.** Appellant respectfully submits that the creation of the beta test version prior to the constructive reduction to practice on March 2, 1998 is sufficient to establish due diligence during this short period of time.

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[33] Exhibit Sheet D
[34] *June 15, 2004 O.A.*, page 13, para 13

Appellant notes that a *Supplemental Declaration* has been submitted prior to the filing of this Appeal Brief, which is intended to support and clarify certain statements in the *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed.* In particular, Appellant submits that the *Supplemental Declaration* further illustrates that the invention as claimed in pending Claims 2 and 9 was reduced to practice prior to the effective date of the Aeromed reference, particularly with respect to the features of a second module comprising instructions for generating a calculated flight path to the patient site, and a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path. In the alternative, as discussed above with respect to the *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed*, Appellant submits that the *Supplemental Declaration* further illustrates conception of the invention as claimed in Claims 2 and 9 prior to the effective date of the Aeromed reference coupled with due diligence until the point of filing, less than one month later.

Applicant further submits that while the *Supplemental Declaration* supports and clarifies statements made in the *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed*, the *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed* is sufficient, on its own, to show that the invention was reduced to practice prior to February 5, 1998, or that in the alternative, if the *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed* is insufficient to establish actual reduction to practice, the facts illustrate due diligence coupled with prior invention.

B. <u>Claim 2 Is Not Anticipated By Aeromed Because Aeromed Fails to Disclose Instructions For Determining Whether the Actual Flight Path Varies From the Calculated Flight Path and Because Aeromed Does Not Contain Enabling Disclosure of Instructions For Dispatching an Aircraft</u>

It is well settled that a "prior art reference anticipates a claim only if the reference discloses, either expressly or inherently, every limitation of the claim."[35] In order to anticipate the claim, "the [prior art] reference must describe the Applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it."[36] Moreover, "[t]o serve as an anticipation when the reference is silent about the asserted inherent

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[35] *Rowe v. Dror, 112 F.3d 473, 42 U.S.P.Q. 2d 1550 (Fed. Cir. 1997)*
[36] *In re Spada 911 F.2d 705, 15 U.S.P.Q. 2d 1655 (Fed. Cir. 1990)*

characteristic, such gap in the reference may be filled with recourse to extrinsic evidence [which] must make clear that the missing descriptive matter is *necessarily present* in the thing described in the reference, and that it would be so recognized by persons of ordinary skill."[37] As explained in detail below, Appellant submits that the Examiner failed to establish a *prima facie* case of anticipation of Claims 2-9, at least because Aeromed does not teach or suggest every limitation recited in Claim 2.

Appellant respectfully submits that Aeromed does not disclose or suggest a computerized system comprising "a third module comprising instructions for tracking the actual path of the vehicle and determine whether the actual path varies from the calculated path." Aeromed mentions a system with "real-time flight tracking" and "graphical flight path display" (Aeromed, page 4). Appellant respectfully submits that the portion of the Aeromed document cited by the Examiner does not disclose or suggest instructions for determining whether the actual flight path varies from the calculated path. In addition, a more detailed description of the flight tracking performed by Aeromed, from a portion of the document not cited by the Examiner, states that:

> "AeroMap shows you the flight plans of all active units as lines on the map. Position reports are shown as dots. Watch your aircraft as it flies to its destination! You can easily tell if it is off-course." (Aeromed, page 9)

Appellant respectfully submits that Aeromed discusses a system where the user, looking at position reports and flight plans displayed on a map, can determine whether or not the aircraft is on the calculated flight path. Appellant further submits, however, that this does not disclose, nor does it suggest, a computerized system comprising instructions for determining whether the actual flight path varies from the calculated flight path, as required by the third module of Claim 2. If any determination is made, it is a non-quantitative opinion made by the user viewing a display, not by the computerized system. Appellant respectfully submits that, as Aeromed does not disclose or suggest a computerized system comprising instructions for determining whether the actual flight path varies from the calculated flight path, it neither anticipates nor suggests the claimed invention.

The Examiner has stated that:

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[37] *Continental Can Company USA, Inc. v. Monsanto Co., 948 F.2d 1264, 20 U.S.P.Q. 2d 1746 (Fed. Cir. 1991) (emphasis added).*

> [T]he Aeromed reference teaches a feature which produces flight plans and also teaches features that calculate navigation for the entire flight plan and displays nearest aircraft to the scene. The examiner takes the position that from these three pieces of information (flight plans, navigation path and nearest aircraft to the scene-(in order to determine the nearest aircraft to the scene the system in Aeromed must determing the actual location of the aircraft)) the deviation from the calculated flight plan can be determined in Aeromed, it is an inherent feature.[38]

Appellant respectfully submits that in order to establish inherency of a feature about which the reference is silent, it must be shown that the feature "is necessarily present in the reference, and would that it would be so recognized by persons of ordinary skill." The Examiner has not shown that this feature is necessarily present in the Aeromed reference. On the contrary, Appellant respectfully submits that the statement "[y]ou can easily tell if it is off course!" indicates that instructions for determining whether the actual flight path varies from the calculated flight path are not present in the Aeromed reference, as it appears that visual identification of deviations from the calculated path by an observer is the only manner in which these deviations can be determined. Thus, Appellant respectfully submits that the feature of instructions for determining whether the actual flight path varies from the calculated flight path is not present, either expressly or inherently, in the Aeromed reference.

An anticipatory printed publication must describe the invention specifically enough to be enabling. *Ex Parte Thompson*, 24 U.S.P.Q.2d 1618, 1619 (Fed. Cir. 1992). Accordingly, even if the claimed invention is disclosed in the printed publication, that disclosure will not suffice as prior art if it is not enabling. *In re Donahue*, 766 F.2d 531, 533 (Fed. Cir. 1985). While not directed specifically at prior art enablement, the eight factors laid out in *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988), for determining whether the specification of a patent enabled a person of ordinary skill in the art to practice the invention without undue experimentation appear applicable by analogy. Of the eight factors enumerated in that case, the most applicable to the present case appears to be the "amount of direction or guidance presented." *Id.*

As discussed in the response to the September 21, 2004 Office Action, Appellant submits that the cited portion of the Aeromed reference is not an enabling disclosure with respect to the

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[38] *September 21, 2004 Office Action*, page 4, para. 7 – page 5, para. 1

feature of instructions for dispatching an aircraft, because of the lack of direction and guidance provided. The section within the cited portion of Aeromed relevant to Claim 2 is as follows:

> "The AMS (AeroMed Software) *Dispatch Module* can be used with the *Flight Management Module* or as a stand-alone system. It is an integrated real-time flight dispatching program used to log incoming requests, find coordinates or landmarks such as hospitals, road intersections, airports, towns, etc., produce flight plans, and dispatch the aircraft. It is extensively menu and hotkey driven and is FAST – the aircraft can be dispatched as quickly as the information is gathered.
>
> **Dispatch Advantages**
>
> · Calculates navigation for entire flight plan; displays nearest aircraft to scene. Can use the Yeoman plotter as a waypoint input device. Database of all US Towns, Airports, and Navaids is included.
> · Pop-up Windows display navigation information, radio frequencies, LZ descriptions, etc.
> · Up to 995 vehicles tracked simultaneously; unlimited pending request queue.
> · Real-time flight tracking. Hotkeys show nearest trauma center, airport, etc. Graphical flight path display. Yeoman plotter can display position fixes.
> · Automatically activates alphanumeric pagers."[39]

The section of the cited portion relevant to Claim 2 as a whole is only 14 lines long, and is merely a list of features. Appellant submits that a substantial part of those 14 lines discusses producing flight plans and tracking flights, information relevant only to the second and third modules of Claim 2. Of the remaining portion, very little is relevant to instructions for dispatching an aircraft, the first module of Claim 1. Furthermore, everything under the "Dispatch Advantages" heading represents a result of the program, as evidenced by the heading. Appellant submits that there is nothing in the cited portion of the Aeromed reference that discloses how to dispatch an aircraft.

In contrast, the above-referenced patent application contains a significant amount of disclosure relevant to embodiments of both the system of Claim 2 generally, and the first module of Claim 2. Figure 4 contains a flowchart describing the dispatch module (an embodiment which comprises instructions for each of the three modules of Claim 2) in detail. Figure 3 contains a flowchart that shows inputs of each of the submodules

within the dispatch module as well as the flow of information out of the dispatch module. Figure 2 contains a flowchart that shows the flow of information through the system as a whole, including the dispatch module. The dispatch module is discussed generally on at least pages 7, 8-10, 15-16, and 17-20. The portions of the dispatch module relevant to enablement of the first module of Claim 2 are discussed on at least pages 7, 8-10, 15-16, and 17-18. In particular, the discussion on pages 15-16, 17-18 contains detailed descriptions of the relevant portion of Figures 3 and 4, respectively.

The cited portion of the allegedly enabling prior art reference contains a handful of lines describing the results of the software. While the Aeromed reference vaguely mentions what the software can do, it does not disclose information helpful to the skilled artisan seeking to design such a computerized system. In contrast, the specification of the above-referenced application contains information enabling a person of ordinary skill in the art to develop the first module of Claim 2, including three relevant figures and a description spread out over several pages. Appellant submits that the information provided in the patent specification, particularly the flowcharts and detailed descriptions thereof, is information of the type that would be required, even by a skilled artisan, to develop the claimed computerized system without undue experimentation. Thus, the present application contains the detailed disclosure lacking in the prior art document.

In response, the Examiner has argued that:

> [F]or a disclosure to be used as prior art it is immaterial as to whether the reference is valid or non-valid as far as novelty is concerned. As long as the reference discloses the claimed invention it can be used in a 35 USC 102 rejection
>
> Applicant also argues that the amount of technical detail in the Aeromed reference is not as much as in the instant application. However, the fact is that Aeromed discloses the invention as defined by the claims and that is all that matters. The specification are not the metes and bounds of the invention…
>
> Aeromed also teaches "how to dispatch an aircraft" because it teaches dispatching the aircraft based on information gathered by the system (aeromed; Page 4, paragraph 1). Even though more detail is not provided the examiner would like to point out that the disclosure of Aeromed still meets the limitations of the claims.[40]

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[39] *Aeromed*, page 4, italics and bold in original, underlining added

[40] *September 21, 2004 Office Action*, page 4, paras. 5-6, and page 5, para. 2

Appellant respectfully submits that the Examiner's response does not address the points raised by Appellant in the response to the September 21, 2004 Office Action. Namely, Appellant respectfully submits that the characterization of the Aeromed reference by the Examiner that "Aeromed … teaches 'how to dispatch an aircraft' because it teaches dispatching the aircraft base on information gathered by the aircraft" falls well short of the requirement that the Aeromed reference "must describe the invention specifically enough to be enabling." The Aeromed reference offers almost no guidance whatsoever to a person of ordinary skill seeking to implement the system described in Aeromed. The Aeromed reference does not allow a person of ordinary skill in the art to practice the invention without undue experimentation. Thus, Appellant submits that even if the feature of "instructions for dispatching an aircraft" is disclosed by the Aeromed reference, as argued by the Examiner, the reference cannot be used as a 35 U.S.C. § 102(a) reference, as it is not an enabling reference, and the Examiner has made no showing that the reference is enabling.

For at least the reasons discussed above, Appellant respectfully submit that Claim 2 is not anticipated under 35 U.S.C. § 102(a) by Aeromed. As Claim 9 depends from independent Claim 2, Appellant respectfully submit that Claim 9 is not anticipated by Aeromed for at least the reasons discussed with respect to Claim 2. Appellant therefore submits that the rejections of Claims 2 and 9 under 35 U.S.C. § 102(a) should be withdrawn.

C. Claims 2, 10, and 15 Are Not Obvious Over The Nathanson Reference in View of the Schriewer Reference, At Least Because Both Nathanson and Schriewer Fail to Teach or Suggest Instructions for Determining Whether the Actual Flight Path Varies From the Calculated Flight Path

The Examiner rejected Claims 5 and 7-9 under 35 U.S.C. § 103(a) as being obvious over Nathanson in view of Schriewer.[41] As will be discussed in greater detail below, Appellant submits that the Examiner failed to establish a *prima facie* case of obviousness with respect to Claims 2, 10 and 15, at least because neither Nathanson nor Schriewer teach every limitation present in claims 2, 10, and 15.

In the first Office Action, mailed May 7, 2003, the Examiner stated with respect to Claim 2 that

Nathanson teaches a computerized system for managing transportation of a patient comprising:

a first module comprising instructions for dispatching a vehicle carrying an emergency transport crew to a patient site (Nathanson; Abstract, column 4, lines 21-27, column 16, line 42-column 18, line 5, and column 21, lines 6-31)

a second module comprising instructions for generating a calculated path to the patient site (Nathanson; column 18, lines 8-28)

a third module comprising instructions for tracking the actual path of the vehicle and determining whether the actual path varies from the calculated path (Nathanson; colum 19, line 43 to column 20, line 2).[42]

The Examiner conceded that "Nathanson fails to expressly teach the vehicle being an aircraft carrying an emergency transport crew to a patient site" but argued that Schriewer teaches these features (at page 1, para. 1), and that it would have been obvious to "expand the system taught by Nathanson with Schriewer's teaching with regards to these limitations, with the motivation of 'transporting critical-care patients or accident victims ... [where] ... time is of the essence' (Schriewer; page 1, paragraph 1, lines 5-6)".[43] The Examiner rejected Claims 10 and 15 for the same reasons as Claim 2, arguing that they repeat the features of Claim 2.

In the Final Office Action mailed September 21, 2004, the Examiner argued that:

> [T]he system of Nathanson calculates parameters such as the estimated time of pickup and departure which necessarily reflect the actual flight path. Moreover, the system in Nathanson teaches a minimum path algorithm. The examiner contends that from these pieces of information the deviation of the actual flight path from the calculate[d] flight path (minimum path algorithm) can be determined.

In the most recent Office Action, mailed June 15, 2005, the Examiner stated:

> [p]lease note that Examiner interprets Nathanson's teachings of
>
> > 'The on-board vehicle hardware may include an automated vehicle locator system based on the LORAN "C" coordinate navigation system. The LORAN transceiver signals the approximate real time vehicle position of the vehicles on the graphic display monitor. The vehicle information is displayed in the form or coordinate maps of the service areas. The maps display icon-based indicators of vehicle locations and downstream itineraries, pock-up and delivery locations, service zones, and highlighted

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[41] *June 15, 2005 Office Action*, page 3, para. 6
[42] *May 7, 2003 Office Action*, page 3, para. 4 - page 4, para. 3.
[43] *June 15, 2005 Office Action*, page 4, paras. 5-7

> displays of vehicle routes.' (Nathanson; column 4, lines 1-12; together with
>
> '[t]he interruption indicates that a vehicle's current itinerary has been revised by a stop insertion and that the vehicle's immediate destination has to be rerouted' (Nathanson; column 30, lines 10-21)

as teaching these limitations.[44]

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.[45] Second, there must be a reasonable expectation of success.[46] Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations.[47] The initial burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done.[48] If the reference does not suggest the claimed invention, the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.[49]

Appellant first submits that the cited portion of Nathanson which discusses the on-board vehicle hardware does not itself teach instructions for determining whether the actual flight path varies from the calculated flight path. It is unclear from the text of the Nathanson reference whether the "highlighted displays of vehicle routes" represent the actual route being traveled by the vehicles, or whether it represents a route such as the route calculated by the minimum path algorithm discussed elsewhere in the specification. **Nevertheless, the on-board vehicle hardware merely displays this information, and there is no teaching in the cited portion that the system of Nathanson includes any instructions for determining whether the actual path of the ground vehicle of Nathanson varies from the calculated route.**

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[44] *Id.*, page 16, paras. 1-4
[45] *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991)
[46] *Id.*
[47] *Id.*
[48] *See* M.P.E.P. § 706.02(j)
[49] *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985).

Furthermore, because the vehicles discussed in Nathanson are ground vehicles, the possible paths taken to a destination are limited by the roads which lead to that destination, and a deviation from the calculated path would involve taking a completely different road to the destination. Because this display is a part of the on-board vehicle hardware, the driver would be the only person to view the display, and the driver would already be aware that a different road is being taken to the destination. There is, thus, no teaching in the cited portion of Nathanson which discloses instructions for determining whether the actual flight path varies from the calculated flight path, nor is there any suggestion or motivation to modify the system to include such instructions.

The additional portions of Nathanson cited by the Examiner do not cure this deficiency. In particular, Appellant disagrees with the Examiner's assertion that the discussion of the on-board vehicle hardware in conjunction with the discussion of the stop insertion teach instructions for determining whether the actual flight path varies from the calculated flight path. Appellant respectfully submits that the cited portion of Nathanson discussing the "stop insertion" can be better understood in conjunction with the preceding sentence. The relevant portion of the Nathanson reference states:

> The second function occurs when an assignment interruption input arrives from the dispatch program **300**. The interruption indicates that a vehicle's current itinerary has been revised by a stop insertion and that the vehicle's immediate destination has to be rerouted.[50]

This portion of the Nathanson reference clearly does not disclose determining whether the actual path of the vehicle varies from the calculated flight path. Rather, an instruction has been received from the dispatch program which changes the intended destination of the vehicle. At best, the receipt of the instruction results in a modification of the calculated path of the vehicle, as the immediate destination of the vehicle has been changed by this instruction, but has nothing to do with the actual path of the ground vehicle.

This can be seen even more clearly when examining the dispatch program. The dispatch program of Nathanson can be utilized to determine the best candidate vehicle to be rerouted. One part of this determination is the "Distance Out of the Way", which is defined as "[t]he total additional distance traveled with the new stop is to be inserted, or if the new stop is to be reached

directly from the vehicle's current location."[51] If the stop is to be inserted after the current destination, any variance between the actual path being taken by the vehicle and the calculated path is irrelevant, as the vehicle must still travel to the current destination, regardless of the actual path currently being taken to that destination.[52] If the stop is to be inserted prior to the current destination, then the distance to be traveled can be calculated directly from the current location of the vehicle.[53] There is no disclosure in Nathanson of determining whether the current position of the vehicle represents a variance from the calculated path, nor would it make any sense to make such a determination, as this information would be irrelevant to the calculations being made.

"Estimated Time of Arrival" is also taken into account by the dispatch program, and calculating any variance between the previously estimated time arrival and the current estimated time of arrival – based on the current location of the ground vehicle – would be similarly useless, as it is only the current location of the vehicle which matters to this analysis.[54] Thus, determining whether the actual path of the vehicle has varied from the calculated path is also not taught by Nathanson in conjunction with the calculation of the estimated time of arrival from the current location.

These deficiencies are not cured by the Schriewer reference, which merely discusses the use of helicopters as emergency transport vehicles, and has been cited by the Examiner only as teaching the vehicle being an aircraft carrying an emergency transport crew to a patient site.

Therefore, for at least the reasons discussed above, Appellant respectfully submits that the Examiner has failed to make out a *prima facie* case that Claim 2 is obvious over Nathanson in view of Schriewer, and that Claim 2 is patentable over Nathanson and Schriewer. As the Examiner relied on the same arguments with respect to the patentability of Claims 10 and 15, Appellant respectfully submits that the Claims 10 and 15 are patentable over Nathanson and Schriewer for at least the reasons discussed above with respect to Claim 2. Similarly, as Claims 3-9 depend from independent Claim 2, Claims 11-14 depend from independent Claim 10, and

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[50] *Nathanson*, col. 30, ll. 10-14
[51] *Nathanson*, col. 16, ll. 51-54
[52] *See id.*
[53] *See id.*
[54] *See id.*, col. 16, ll. 57-63.

Claims 16-19 depend from independent Claim 15, Appellant respectfully submits that they are patentable for at least the reasons discussed with respect to the independent Claims 2, 10, and 15 from which they depend. Appellant submits that the rejections of Claims 2-19 under 35 U.S.C. § 103(a) should be withdrawn.

For the reasons discussed above, Appellant respectfully submits that Claims 2 and 9 are not anticipated under 35 U.S.C. 102(a) by Aeromed, and Claims 2-19 are not obvious under 35 U.S.C. § 103(a) over Nathanson in view of Schriewer. As Appellant has addressed each of the grounds of rejection of the independent claims on appeal, Appellant respectfully submits that Claims 2-19 are in condition for allowance, and requests allowance of Claims 2-19.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 4/14/06

By: _____

John M. Carson
Registration No. 34,303
Attorney of Record
Customer No. 20,995
(619) 235-8550

X. CLAIMS APPENDIX

The claims involved in this appeal are as follows:

2. (Previously Presented) A computerized system for managing airborne transportation of a patient, comprising:

a first module comprising instructions for dispatching an aircraft carrying an airborne emergency transport crew to a patient site;

a second module comprising instructions for generating a calculated flight path to the patient site; and

a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path.

3. (Previously Presented) The system of Claim 2, wherein the aircraft is a helicopter.

4. (Previously Presented) The system of Claim 2, wherein the patient site is an accident site.

5. (Previously Presented) The system of Claim 2, wherein the patient site is a hospital.

6. (Previously Presented) The system of Claim 5, wherein the first module comprises instructions for determining whether transportation of the patient from the patient site to another hospital is in compliance with interfacility transportation guidelines.

7. (Previously Presented) The system of Claim 6, wherein the guidelines are the Consolidated Budget Reconciliation Act (COBRA) or the Omnibus Budget Reconciliation Act (OBRA).

8. (Previously Presented) The system of Claim 2, wherein the first module comprises instructions for storing crew work schedules for the emergency transport crew.

9. (Previously Presented) The system of Claim 2, wherein the third module comprises instructions for tracking the flight coordinates of the aircraft.

10. (Previously Presented) A system for managing airborne transportation of a patient, comprising:

means for dispatching an aircraft carrying an airborne emergency transport crew to a patient site;

means for generating a calculated flight path to the patient site; and

means for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path.

11. (Previously Presented) The system of Claim 10, wherein the dispatching means comprise means for determining whether transportation of the patient from the patient site to another hospital is in compliance with interfacility transportation guidelines.

12. (Previously Presented) The system of Claim 11, wherein the guidelines are the Consolidated Budget Reconciliation Act (COBRA) or the Omnibus Budget Reconciliation Act (OBRA).

13. (Previously Presented) The system of Claim 10, wherein the dispatching means comprises means for storing crew work schedules for the emergency transport crew.

14. (Previously Presented) The system of Claim 10, wherein the tracking means comprises means for tracking the flight coordinates of the aircraft.

15. (Previously Presented) A method of managing airborne transportation of a patient, comprising:

dispatching an aircraft carrying an airborne emergency transport crew to a patient site;

generating a calculated flight path to the patient site;

tracking the actual flight path of the aircraft; and

determining whether the actual flight path varies from the calculated flight path.

16. (Previously Presented) The method of Claim 15, wherein dispatching an aircraft comprises determining whether transportation of the patient from the patient site to another hospital is in compliance with interfacility transportation guidelines.

17. (Previously Presented) The method of Claim 16, wherein the guidelines are the Consolidated Budget Reconciliation Act (COBRA) or the Omnibus Budget Reconciliation Act (OBRA).

18. (Previously Presented) The method of Claim 15, additionally comprising storing crew work schedules for the emergency transport crew.

19. (Previously Presented) The system of Claim 15, wherein tracking the flight path comprises tracking the flight coordinates of the aircraft.

XI. EVIDENCE APPENDIX

In an Amendment and Reply to Final Office Action mailed December 17, 2004, Appellant submitted a *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed*, along with accompanying Exhibit Sheets A1, A2, A3, B1, B2, B3, C, D, E1, E2, and E3. A Request for Continued Examination mailed on January 21, 2005 requested consideration of the December 17, 2004 Amendment. The *Declaration Under 37 C.F.R. § 131 To Overcome Aeromed*, and accompanying Exhibit Sheets are relied upon by the Appellant with respect to the grounds of rejection on appeal, and copies are attached herewith.

In a Submission Prior to Filing of Appeal Brief sent April 13, 2005, Appellent submitted a *Supplemental Declaration*, along with accompanying Exhibit Sheets F, G, and H. Copies of the *Supplemental Declaration* and accompanying Exhibit Sheets are also attached herewith.

XII. RELATED PREOCEEDINGS APPENDIX

As noted above in Section IV, None of the Appellant, Appellant' legal representative, or assignee is aware of any appeal or interference which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Scott J. Jones, et al.
Appl. No.	:	09/659,866
Filed	:	September 12, 2000
For	:	INTEGRATED EMERGENCY MEDICAL TRANSPORTATION DATABASE SYSTEM
Examiner	:	Pass, Natalie
Group Art Unit	:	3626

SUPPLEMENTAL DECLARATION

1. This Declaration is in support of the *Declaration Under 37 C.F.R. § 131 to Overcome Aeromed*, submitted on January 21, 2005 to establish the status of the invention in the above-captioned U.S. patent application in the United States on February 5, 1998, which is the effective date of Aeromed (http://www.aeromed-software.com, February 5, 1998)

2. I am one of the named joint inventors of the described subject matter and all claims in the above-referenced application.

3. I have read the Office Actions mailed September 21, 2004 (Paper No. 9) and June 15, 2005 (Paper No. 05272005) regarding the above-captioned application.

4. The invention as described in Claims 2 and 9 of the pending examination was either actually reduced to practice prior to the effective date of the Aeromed reference or was undergoing due diligence to reduce to practice prior to the effective date of the Aeromed reference, as shown by the Exhibits submitted with the *Declaration Under 37 C.F.R. § 131 to Overcome Aeromed* and the Exhibits attached hereto.

5. **Exhibit Sheet F** is a portion of source code indicative of the feature of a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path. This source code, or source code functionally comparable to this source code, was either written prior to February 5, 1998, or was undergoing due diligence in writing the source code.

6. **Exhibit Sheet G** is a portion of a screen shot from a dispatch report dated June 6, 1998, which is indicative of the features of a second module comprising instructions for generating a calculated flight path to the patient site, and a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path. Although the date of this report is after the effective date date of the Aeromed reference, the screen shot illustrates features which were either reduced to practice prior to February 5, 2006 or was undergoing due diligence to reduce to practice. No dispatch report data prior to June 6, 1998 could be obtained.

7. **Exhibit Sheet H** is a portion of a screen shot from the dispatch software illustrating a use of the feature of determining whether the actual flight path varies from the calculated flight path. This feature utilizes the source code shown in **Exhibit Sheet F** or source code functionally comparable to that source code.

8. Therefore, **Exhibit Sheets F, G** and **H** further clarify the assertion in the *Declaration Under 37 C.F.R. § 131 to Overcome Aeromed* that features of the system regarding a computerized system for managing airborne transportation of a patient, comprising a first module comprising instructions for dispatching an aircraft carrying an airborne emergency transport crew to a patient site, a second module comprising instructions for generating a calculated flight path to the patient site, and a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path, as well as a third module further comprising instructions for tracking the flight coordinates of the aircraft were clearly conceived prior to February 5, 1998 and either actually reduced to practice prior to February 5, 1998 or were undergoing due diligence to reduce to practice.

9. I, Kevin C. Hutton, am listed as an inventor on U.S. Patent Application 09/033,440, filed March 2, 1998, which is the priority application for the subject application.

10. All acts leading to the reduction to practice were performed in the United States.

11. This document is submitted prior to the filing of an Appeal Brief in order to clarify statements made in the previous *Declaration Under 37 C.F.R. § 131 to Overcome Aeromed.*

Penalty of Perjury Statement

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these

statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent resulting therefrom.

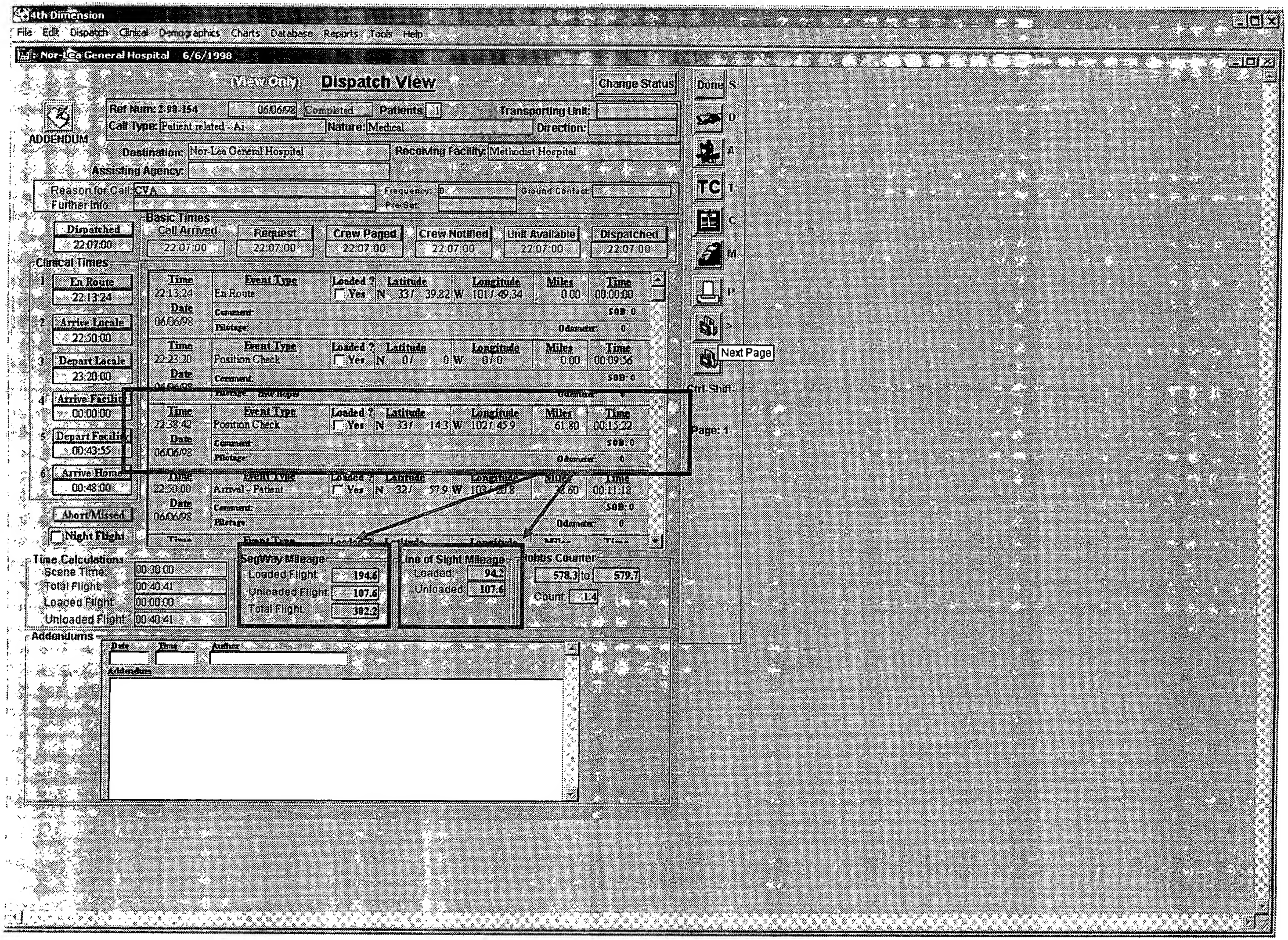
Dated: _4/12/06_____ By: _____
Kevin C. Hutton

2518068
041206

```
USE SET("$Air Times")
$Rec:=Records in selection([DispatchTimes])
If ($Rec>0)
        QUERY SELECTION([DispatchTimes];[DispatchTimes]Loaded=True;*)
        QUERY SELECTION([DispatchTimes]; & ;[DispatchTimes]Leg_Miles>0.0001)
        CREATE SET([DispatchTimes];"Loaded Times")
        USE SET("Loaded Times")
        $Rec:=Records in selection([DispatchTimes])
        FIRST RECORD([DispatchTimes])
        $Loaded:=0
        For ($i;1;$Rec)
                $Loaded:=$Loaded+[DispatchTimes]Leg_Miles
                NEXT RECORD([DispatchTimes])
        End for
End if
```

EXHIBIT F

EXHIBIT G


4th Dimension
File Edit Dispatch Clinical Demographics Charts Database Reports Tools Help
Nor-Lea General Hospital 6/6/1998
(View Only) Dispatch View
Change Status
Done
ADDENDUM
Ref Num: 2.98-154
06/06/98
Completed
Patients: 1
Transporting Unit:
Call Type: Patient related - Ai
Nature: Medical
Direction:
Destination: Nor-Lea General Hospital
Receiving Facility: Methodist Hospital
Assisting Agency:
Reason for Call: CVA
Further Info:
Frequency: 0
Pre-Set:
Ground Contact:
Basic Times
Dispatched 22:07:00
Call Arrived 22:07:00
Request 22:07:00
Crew Paged 22:07:00
Crew Notified 22:07:00
Unit Available 22:07:00
Dispatched 22:07:00
Clinical Times
1 En Route 22:13:24
2 Arrive Locale 22:50:00
3 Depart Locale 23:20:00
4 Arrive Facility 00:00:00
5 Depart Facility 00:43:55
6 Arrive Home 00:48:00
Abort/Missed
Night Flight
Time Calculations
Scene Time 00:30:00
Total Flight 00:40:41
Loaded Flight 00:00:00
Unloaded Flight 00:40:41
Time | Event Type | Loaded ? | Latitude | Longitude | Miles | Time
22:13:24 | En Route | Yes | N 33 / 39.82 | W 101 / 49.34 | 0.00 | 00:00:00
Date 06/06/98
Comment:
Pilotage:
SOB: 0
Odometer: 0
22:23:20 | Position Check | Yes | N 0 / 0 | W 0 / 0 | 0.00 | 00:09:56
22:38:42 | Position Check | Yes | N 33 / 14.3 | W 102 / 45.9 | 61.80 | 00:15:22
22:50:00 | Arrival - Patient | Yes | N 32 / 57.9 | W 103 / 20.8 | 28.60 | 00:11:18
Segway Mileage
Loaded Flight 194.6
Unloaded Flight 107.6
Total Flight 302.2
Line of Sight Mileage
Loaded 94.2
Unloaded 107.6
Hobbs Counter
578.3 to 579.7
Count 1.4
Addendums
Date
Time
Author
Addendum
Next Page
Ctrl-Shift-
Page: 1

Segway Mileage Deviation Threshold

By what percentage segway mileage exceeds site to site mileage before user is prompted to enter justification documentation.	1.00 (0.00 to 1.00)

EXHIBIT H

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Scott J. Jones, et al.
Appl. No.	:	09/659,866
Filed	:	September 12, 2000
For	:	INTEGRATED EMERGENCY MEDICAL TRANSPORTATION DATABASE SYSTEM
Examiner	:	Vivek D. Koppikar
Group Art Unit	:	3626

DECLARATION UNDER 37 C.F.R. § 131 TO OVERCOME AEROMED

1. This Declaration is to establish the status of the invention in the above-captioned U.S. patent application in the United States on February 5, 1998, which is the effective date of Aeromed (http://www.aeromed-software.com, February 5, 1998)

2. We are the named joint inventors of the described subject matter and all claims in the above-referenced application.

3. We have read the Office Action mailed September 21, 2004 (Paper No. 9) regarding the above-captioned application.

4. We developed our invention as described and claimed in the subject application in this country, as evidenced by the following events:

a. By at least February 5, 1998, we had conceived of a computerized system for managing airborne transportation of a patient.

b. A manuscript, entitled "An Object Oriented Client Server Solution to Air Medical Transport Documentation and Billing," was written prior to February 5, 1998. A copy of the portion of the manuscript describing the capabilities of the system is attached hereto as **Exhibit Sheets A1**, **A2**, and **A3**. Portions of **A1** and **A3** have been redacted Three figures from the same manuscript are attached hereto as **Exhibit Sheets B1**, **B2**, and **B3**. **Exhibit Sheet B1** is a diagram of the system as a whole. **Exhibit Sheet B2** is a diagram of a Scheduling subcomponent, as discussed in **Exhibit Sheet A2**. **Exhibit Sheet B3** is a block diagram of a

Dispatch module, as discussed in **Exhibit Sheets A2** and **A3**. Each of the diagrams **B1**, **B2**, and **B3** is shown in object model notation.

c. A document, entitled "Business Plan Summary," was written prior to February 5, 1998. A copy of the section entitled "Vision" is attached hereto as **Exhibit Sheet C**. A portion of this sheet has been redacted.

d. A document, entitled "Life Flight-San Diego Integrated Information System: A Proposal for Implementation," was written prior to February 5, 1998. A copy of the section entitled "Operational Uses" is attached hereto as **Exhibit Sheet D**. A portion of this sheet has been redacted.

e. A document containing drafts of the figures used in U.S. Patent Applications 09/033,440 (the priority application) and 09/659,866 (a continuation of the priority application) was created prior to February 5, 1998. Copies of Figures 3, 4A and 4B are attached hereto as **Exhibit Sheets E1**, **E2**, and **E3** respectively. Portions of these sheets have been redacted. Figure **E1** shows the flow of data between various modules in the system, including the Dispatch module. Figures **E2** and **E3** show part of the flow of information within the Dispatch module.

f. The feature of the system regarding a first module comprising instructions for dispatching an aircraft carrying an airborne emergency transport crew to a patient site is shown in **Exhibit Sheets A1**, **A1**, **B1**, **B2**, **B3**, and **E2**. The system described is configured to receive and maintain information regarding scheduling, both of employees and vehicles, at particular locations. The last paragraph of **A1** describes a "Scheduling" module which can be used to prepare schedules for particular transport bases, including the work schedules of various employees (pilots, base physicians, crew members, and dispatchers) and the schedules for a stationed helicopter. Figure **B1** shows a "Scheduling" module with the scheduling information discussed in the last paragraph of **A1** and an "Update" module connected to the Scheduling module. Figure **B2** shows in greater detail the type of information that is maintained regarding employees and vehicles. The system has the capability to utilize this scheduling information in the dispatching of flights. The second paragraph of **A2** describes a "Schedule" subcomponent which uses shift information already entered in the Scheduling

module discussed above to generate a flight record based on the date, time, and base from which the flight takes place. Figure **B3**, which is a block diagram of a "Dispatch" module, uses information from the Scheduling module, as shown by the Scheduling module depicted therein. In dispatching a flight, the system also utilizes patient information and information regarding the scene to which the vehicle is being dispatched. The third paragraph of **A2** describes a "Standby" subcomponent which is used by the dispatcher in the gathering of information regarding scene location, ground contacts and basic patient scenario and demographics. Figure **B3** shows a "Standby" module which is used to gather information about the scene, as seen in the sub-blocks of the Standby block. Figure **E2** shows the importation of shift information from the scheduling module prior to dispatching a flight.

g. The feature of the system regarding a second module comprising instructions for generating a calculated flight path to the patient site is shown in **Exhibit Sheets A2, A3, B1, B3, C, D,** and **E1**. In order to generate a flight path, the system gathers information regarding the rendezvous and landing zone locations as well as the closest and receiving hospitals. The last paragraph of **A2**, which continues on to **A3**, discusses a "Flight" subcomponent which records rendezvous and landing zone information, with address and zip code, as well as Thomas Bros. references and waypoint longitude/latitude locations. In addition, information regarding the base hospital, closest hospital, and receiving hospitals are gathered. If a backup vehicle is required, flight information is transferred automatically from the primary response request data. Figure **B1** shows a Dispatch module which is configured to generate flight information. This flight information includes the calculated flight path. Figure **B3** shows a "Scene" module and its associated sub-modules, which are used to gather information regarding the destination of the aircraft. Figure **B3** also shows a "Hospital" module and its associated sub-modules, which are used to gather and store the hospital information discussed above. The second paragraph of **C** describes the guiding of a helicopter directly to a scene by means of GPS coordinates forwarded to the helicopter. The third paragraph of **D** describes a database containing information regarding

obstructions, wind direction, and landmarks, all of which can be utilized in the generation and description of a flight path. Figure **E1** shows flight information as an output of the Flight subcomponent of the Dispatch module. This flight information includes the calculated flight path

h. The feature of the system regarding a third module comprising instructions for tracking the actual flight path of the aircraft, and the feature of the system regarding a third module comprising instructions for tracking the flight coordinates of the aircraft are shown in **Exhibit Sheets A2, A3, B3, C, D, E1,** and **E3**. During flight, the position of the vehicle is tracked, and position and time stamp information is calculated and recorded. The last paragraph of **A2**, which extends onto **A3**, describes the Flight subcomponent, which tracks the aircraft through timed and recorded position checks. Time stamping of particular events, such as crew changes, is done through communication with the flight crew. Data is constantly updated, even during shift changes at the dispatching base. Figure **B3** shows a "Tracking" module for position tracking during flight and a "Stamping" module and associated sub-module for time stamping of particular events. Figures **E1** and **E3** show flight tracking as being done by a component of the Dispatch module. The system uses flight coordinates in the tracking of the aircraft. The sixth paragraph of **Exhibit Sheet D** describes the use of Loran coordinates in the tracking of the flights. The second paragraph of **Exhibit Sheet C** describes the use of GPS coordinates while in flight.

i. The limitation regarding instructions for determining whether the actual flight path varies from the calculated flight path is shown in **Exhibit Sheets A2, A3, B3,** and **E3**. When a flight diversion or rerouting occurs, the system receives information regarding the reason and time for those events. The last paragraph of **A2**, which extends onto **A3**, describes the calculation of mileage and various times, such as flight time, based on the information recorded by the Flight subcomponent. After being compared against the previously calculated predicted course, if a diversion or rerouting has occurred, the reason and time for those events are entered into the system. Figure **B3** shows "Diversion" and "Rerouting" modules. As can be seen from the figure, the Diversion and

Rerouting modules communicate with the Tracking module. Both the Diversion and Rerouting modules are configured to receive information regarding the time and reason for a discrepancy between the actual path, as determined by the Tracking module, and the calculated path, as determined by the Flight subcomponent of the Dispatch module. Figure **E3** shows that the system checks for diversions once flight tracking begins, and if a diversion is found, the system asks for the reason for the diversion.

j. After conception of the invention as discussed above, the invention was either actually reduced to practice or was undergoing due diligence to reduce to practice prior to February 5, 1998. A beta test version of the service was presented at the Air Medical Transport Conference in Cincinnati, which occurred prior to February 5, 1998.

5. Therefore, **Exhibit Sheets A1, A2, A3, B1, B2, B3, C, D, E1, E2,** and **E3** show aspects of the features of the system regarding a computerized system for managing airborne transportation of a patient, comprising a first module comprising instructions for dispatching an aircraft carrying an airborne emergency transport crew to a patient site, a second module comprising instructions for generating a calculated flight path to the patient site, and a third module comprising instructions for tracking the actual flight path of the aircraft and determining whether the actual flight path varies from the calculated flight path, as well as a third module further comprising instructions for tracking the flight coordinates of the aircraft, which were clearly conceived prior to February 5, 1998, and either actually reduced to practice or was undergoing due diligence to reduce to practice prior to February 5, 1998.

6. I, Scott J. Jones, am listed as an inventor on U.S. Patent Application 09/033,440, filed March 2, 1998, which is the priority application for the subject application. I, Kevin C. Hutton, am listed as an inventor on U.S. Patent Application 09/033,440, filed March 2, 1998, which is the priority application for the subject application.

7. All acts leading to the reduction to practice were performed in the United States.

8. This document is submitted in response to a final rejection.

Appl. No. : **09/659,866**
Filed : **September 12, 2000**

Penalty of Perjury Statement

We declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent resulting therefrom.

Dated: 12/8/04 By: Scott J. Jones
Scott J. Jones

Dated: 11/29/04 By: Kevin C. Hutton
Kevin C. Hutton

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Software

The LifeNet™ database application is programmed in ACIUS's 4th Dimension language with the 4D Server and Client program. It can therefore run in a standard Windows/Macintosh mouse-click office environment, and requires no additional, specialized software programming from the user.

The object oriented design of our database divides it into four main component modules that are interrelated: Scheduling, Dispatch, Clinical, and Billing. Final charting and record documentation is achieved through the combination of appropriate elements from all modules. See Figure 1.

The Scheduling module accomplishes the task of preparing schedules for the respective transport bases of an air medical service, including dispatch, flight crew members, base physician, pilot (co-pilot), and stationed helicopter in service for a given shift. Data can be entered well in advance and updated up to the time a flight is actually dispatched. See Figure 2.

The Dispatch module is divided into three interrelated subcomponents: Schedule, Standby and Flight. See Figure 3.

The Schedule subcomponent shares shift information already entered in the Scheduling module to generate a flight record based on the date, time, and base from which the flight takes place. As mentioned above, upon flight dispatch, the dispatcher will receive the current base physician, crew and helicopter information for verification and update, if required.

The Standby subcomponent enables the dispatcher to gather information regarding scene location, ground contacts, and basic patient scenario and demographics prior to committing and dispatching a flight. This allows agencies requesting air medical transport services to provide an early warning, verify the need for air transport and hence shortening scene response and flight times.

The Flight subcomponent constitutes the main portion of the Dispatch module, and records information pertinent to the flight proper, and tracking through timed and recorded position checks in accordance with Federal Aviation Agency (FAA) and Commission on Accreditation of Medical Transport requirements. Scene with rendezvous and landing zone location, with address and zip code, as well as Thomas Bros. reference, waypoint/long-lat location, requesting agency, ground contact, communication frequency and reason for call are all recorded. Also, type and nature of call, base hospital, closest and receiving hospitals are gathered. Mileage

traveled and time stamping, including scene time, flight time and specialty times, such as crew change and pick up times as well as on site times, are calculated and recorded automatically from the information provided and dispatch feedback from flight crew. In addition, reason and time for flight diversions and reroutings and elected ground transports with justification and alternate plans are entered into the database chart as well. Multiple flights can be orchestrated and recorded in a parallel fashion, while dispatcher and/or base physician change shifts during a flight - all data is constantly updated. When backup vehicles are required and dispatched, flight information is transferred automatically from the primary response request data.

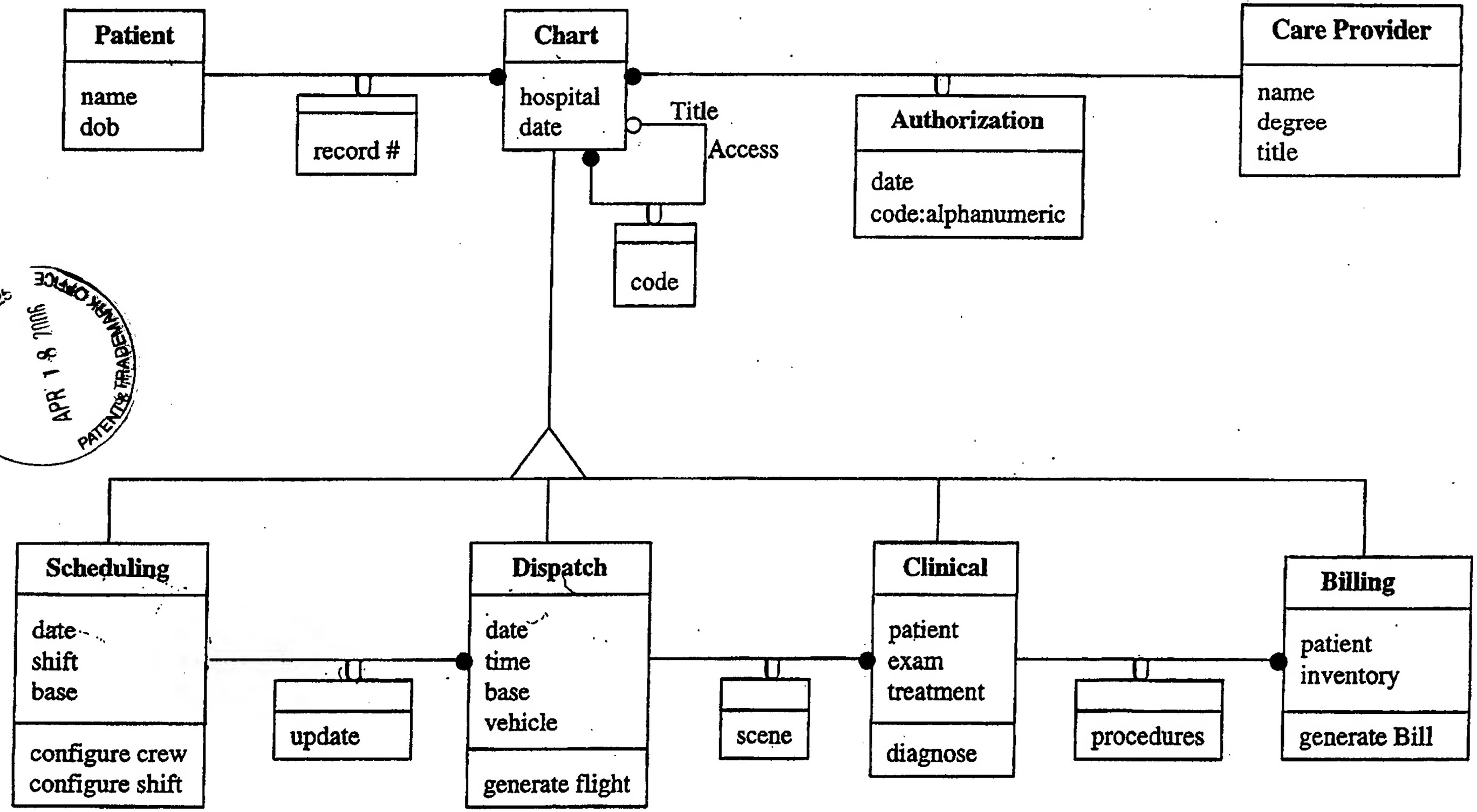

Figure 1.: Object Model Notation of LifeNet

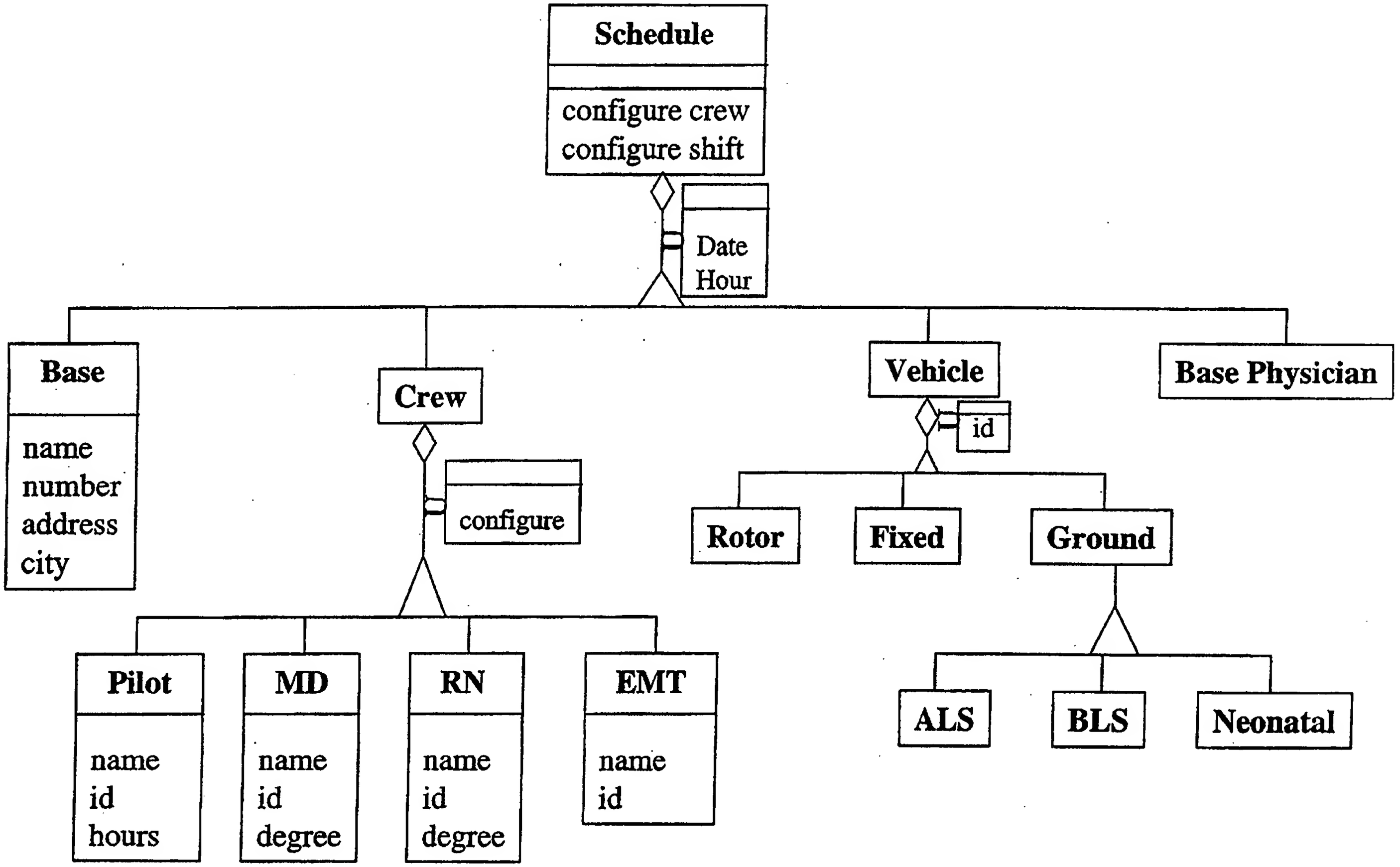

Figure 2.: Scheduling Module in OMN.

EXHIBIT B2

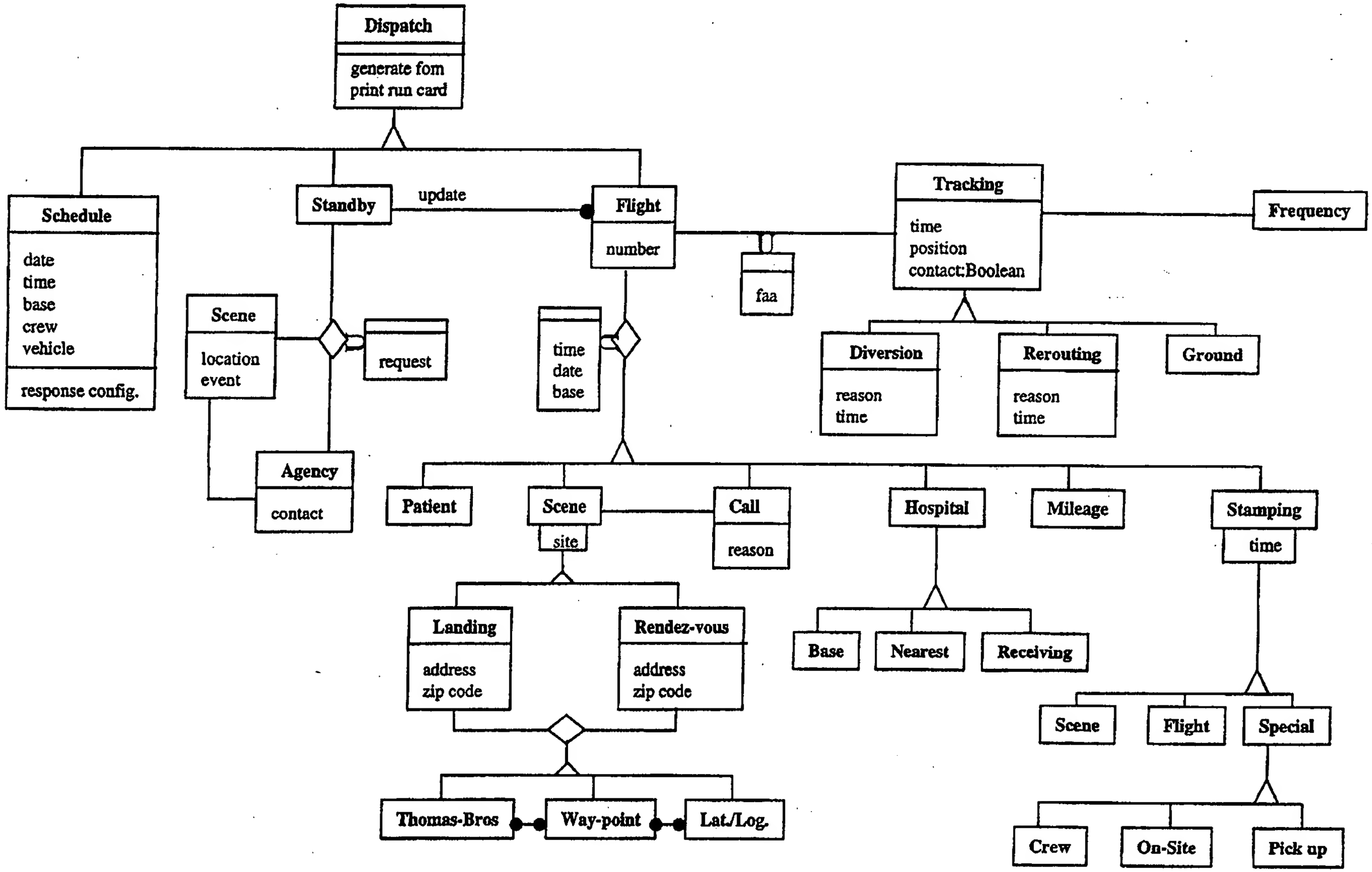

EXHIBIT B3

Figure 3.: Dispatch module in OMN.

Business Plan Summary

Golden Hour Consulting

Vision

Now it is the year and the same sequence of events occur. Only this time the dispatcher clicks a button on his computer monitor to signal the liftoff of the aircraft. Scene information, patient status has been forwarded with the crew notification. The helicopter is guided directly to the scene by the GPS coordinates that were forwarded from the dispatcher.

EXHIBIT C

III Other potential uses

A variety of functions can be performed by the individual computers in addition to the clinical medical record these include:

A. Operational Uses:

2. Landing zone information- *(operations and safety)-by plotting Loran coordinates for all common landing zones we could possibly reduce fuel expense presently used to find landing zones. Obstructions, wind direction, designated ground contacts, and landmarks can be added as well. to increase safety. This will reduce training expense presently used to familiarize new pilots, and could decrease response time. In addition, pilots flying out of area or into little known areas can have a database at their fingertips to do a quick review of their destination, it nearest fuel source, and its individual hazards .*

5. Flight following- *(required by Commission on Accreditation of Air Medical Services (CAAMS))-Computers can be programmed to remind personnel to obtain locations, Loran coordinates, etc. at appropriate intervals.*

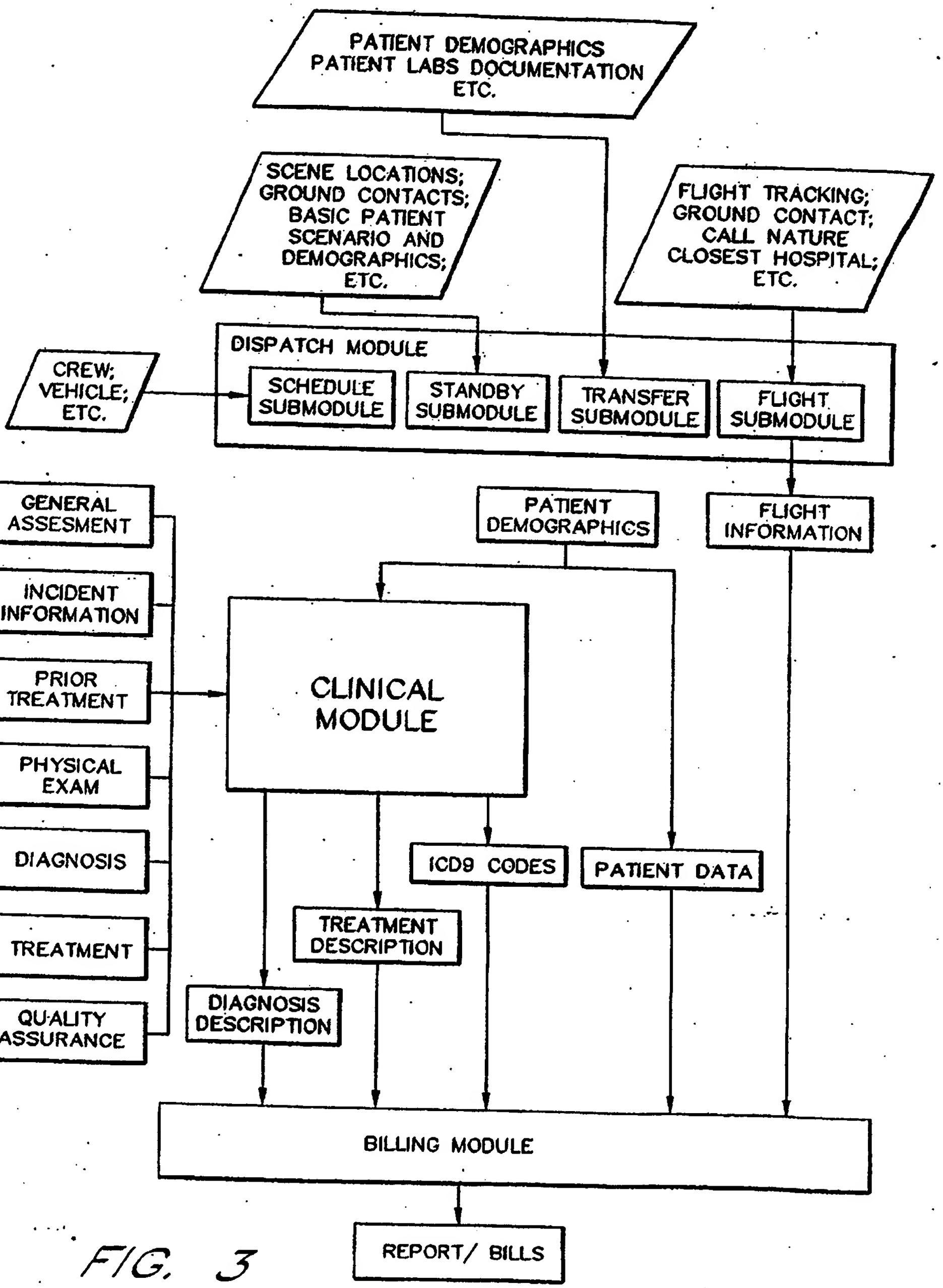

FIG. 3

EXHIBIT E1

FIG. 4

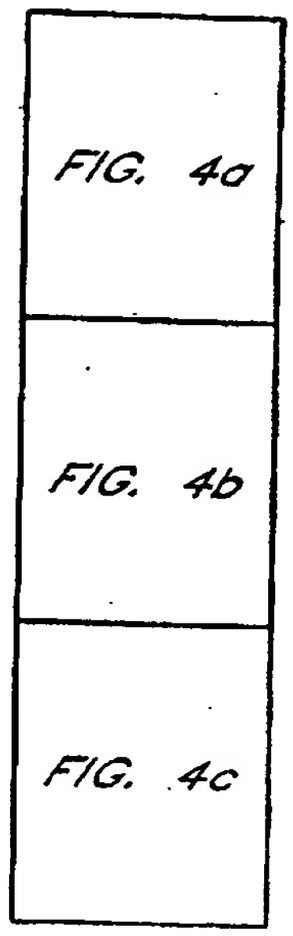

FIG. 4a

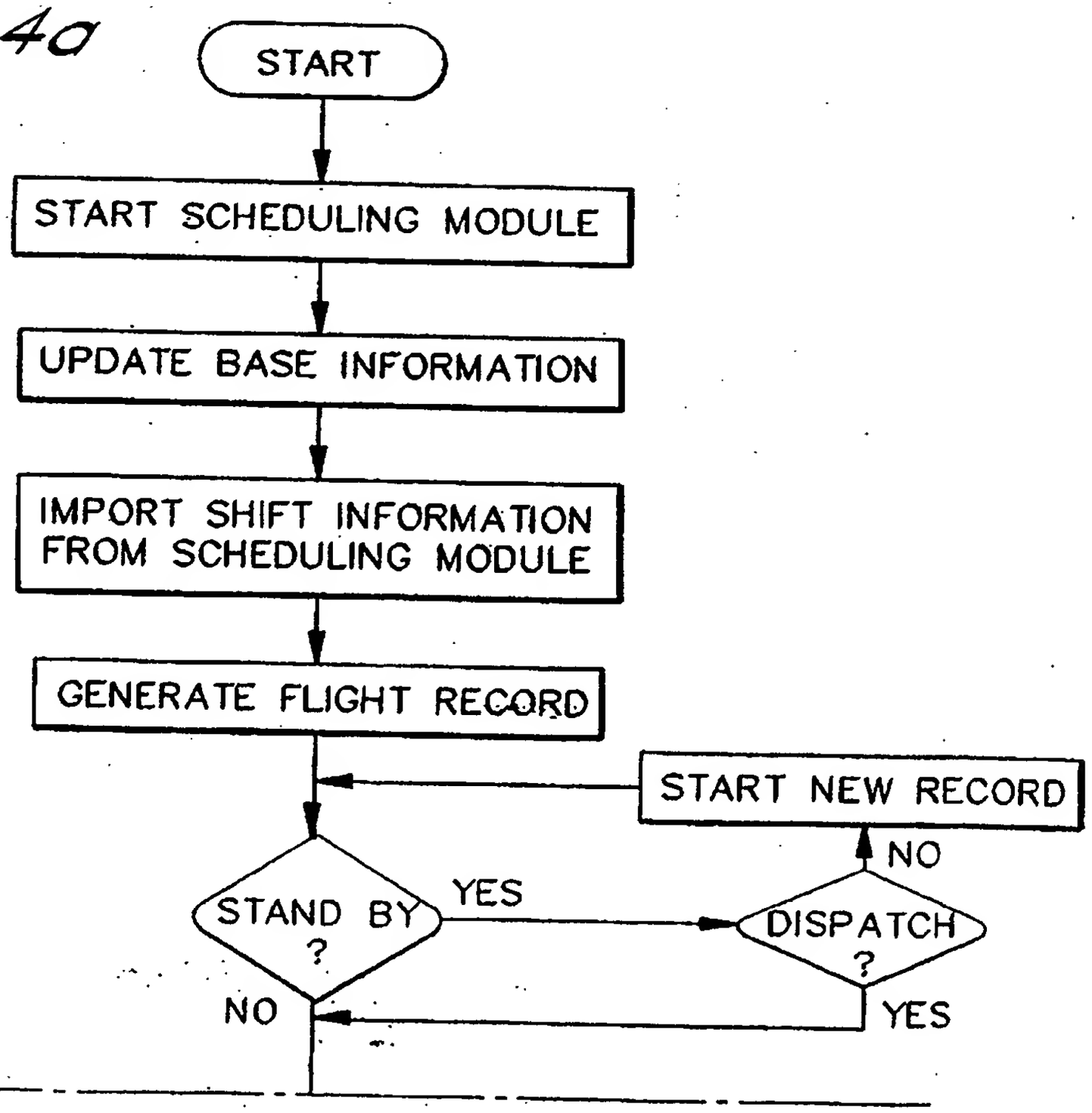

EXHIBIT E2

FIG. 4b

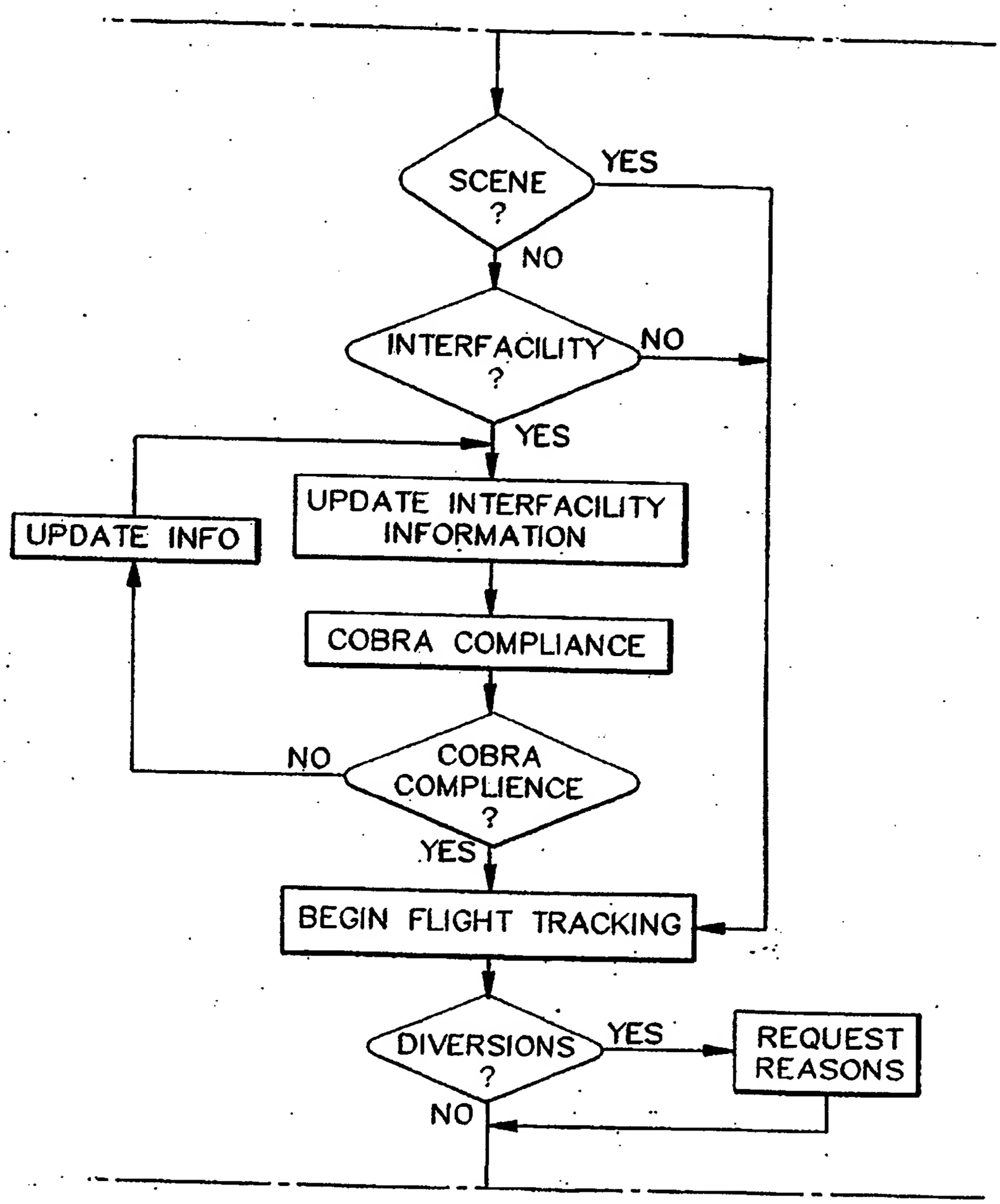

EXHIBIT E3